American White Pelican (Pelecanus erythrorhynchos)

Species Status Statement.

Distribution

American white pelican is a wide-ranging species, and during the breeding season individuals may be found across the continental United States and central Canada. During the non-breeding season, individuals may be found in freshwater wetlands and estuaries across the southern United States, Mexico, and Central America. In Utah, pelicans forage on almost all waterbodies across the state, but their occurrence centers on the Great Salt Lake (GSL). Pelicans are colonial nesters, with one large, long-term breeding colony in Utah, on Gunnison Island in the north arm of the GSL in Box Elder County. Smaller, less consistently used colonies (e.g., at Neponset Reservoir in Rich County) also exist within the state.

Table 1. Utah counties currently occupied by this species.

American White Pelican	
BEAVER	PIUTE
BOX ELDER	SALT LAKE
CACHE	SAN JUAN
DAVIS	SEVIER
GARFIELD	TOOELE
GRAND	UINTAH
IRON	UTAH
JUAB	WASHINGTON
KANE	WAYNE
MILLARD	WEBER

Abundance and Trends

Across the species' range, American white pelican populations have increased on average by 4.82% annually from 1967 to 2015 (95% CI: 1.23 to 7.65; Sauer et al. 2017), and estimates put population growth within Utah over the same period at a higher rate of 6.66% (95% CI: -1.06 to 15.58; Sauer et al. 2017). Global population estimates for American white pelican range from 140,000 to 180,000 individuals (Partners in Flight 2019, BirdLife International 2016), with up to 80,000 of this total being in Utah during the breeding season (Wetlands International 2007; Paul and Manning 2002).

The Gunnison Island nesting colony has seen breeding adult numbers ranging from below 5,000 up to 20,000 individuals, although breeding numbers vary significantly between years. Over the past 60 years, Gunnison Island has seen a generally increasing breeding population, although population growth on the island has leveled off since the mid-1980s (Neill et al. 2016).

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Foraging habitat is primarily open water from one to four feet deep, containing medium to large fish species including sucker, chub, and carp. Suitable foraging habitat is often found around lake and reservoir shorelines, river inlets and outlets, wide slow river bends and backwaters, and wetlands. These habitats can vary from mountain lakes and reservoirs to the natural and managed wetlands around the GSL and Utah Lake.

At their breeding colonies, pelicans will nest in tight formations, often in flat, open areas with little to no vegetation or protection from inclement weather. Nesting colonies are typically located on isolated islands with little available access for terrestrial predators, and minimal disturbance from humans and wildlife.

Threats to the Species

Historically, the main threats to pelicans have been direct and indirect take through perceived human-pelican conflict at fisheries and through trophy hunting (Knopf and Evans 2004), disturbance to nesting colonies (Parrish et al. 2002), and exposure to pesticides, including DDT (Keith 2005). Successful management to reduce these threats, including a continent-wide ban on DDT use, has resulted in an increasing population.

Current and emerging threats include reduced water levels at breeding colonies and foraging grounds. Low lake elevations, whether due to drought or drawdown, can result in colony islands being accessible to coyotes and other terrestrial predators from the mainland. Predator forays can cause substantial colony disturbance and some mortality to eggs and nestlings. In some cases, persistent predator or human presence may cause significant nest abandonment (Knopf and Evans 2004). As lake levels hit new record lows in 2019, the Gunnison colony saw a near-collapse producing only an estimated 700 young (normally more than 3,000).

Avian disease, including botulism, Newcastle disease, and West Nile virus, also presents a current threat to American white pelican. Outbreaks of these diseases appear to be increasing, but it is unknown if this increase is simply reflecting the increasing pelican population, or if disease incidence is also increasing at a per capita rate (Rocke et al. 2005).

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

American Wh	ite Pelican
High	
Problemat	ic Animal Species – Native

Rationale for designation.

While pelican populations have increased, they are still very vulnerable to disturbance on nesting colonies, which can be abandoned completely if disturbed by humans or predators. Given Utah's significant breeding population, abandonment of our colonies would have large impacts to the overall population. The Gunnison Island colony contains on average 5,000 – 10,000 nests (Parrish et al. 2002), making it one of the largest American white pelican colonies in North America, hosting roughly 16% of the rangewide breeding population (UDWR unpublished data). The high concentration of breeding pelicans at the Gunnison colony makes this species especially sensitive in Utah, because loss of the Gunnison colony as a breeding ground could reduce the number of breeding pelicans in Utah to near zero. For the non-breeding population, Utah hosts approximately half of the Pacific Flyway population during summer and migration (Parrish et al 2002; Paul and Manning 2002). The GSL and surrounding wetlands are continentally important to American white pelican.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate the coordinated management of the species to mitigate threats and maintain strong populations, which reduces related economic impacts and prevents drift back toward Endangered Species Act listing. An ESA listing of American white pelican would widely impact activities that reduce water quantity or quality in and around the GSL and its tributaries, including agricultural and municipal water withdrawals, dam relicensing, stream alteration permits, and associated compliance efforts.

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